ELSEVIER

Sensors and Actuators B 21 (1994) 238

SENSORS AND ACTUATORS B CHEMICAL

Author Index of Volume B 21

Agarwal, R.P., 209
Aiyer, R.C., 159
Alberti, K., 39
Annapoorni, S., 165
Ansari, S.G., 159
Ansari, Z.A., 159
Avaritsiotis, J.N., 109

Boccuzzi, F., 27
Borchardt, M., 33
Borsuk, P.S., 65
Briones, F., 205
Brown, R.B., 171
Brudzewski, K., 185
Bücher, S., 33
Bühner, M., 33

Calle, A., 205
Cammann, K., 33, 71
Campanella, L., 219
Castillo, J.R., 135
Cha, K.H., 91
Chang, Q., 83
Chen, Z., 1
Colbow, K., 1, 151

Doi, K., 229
Dumschat, C., 33, 71
Dwivedi, R., 11, 213
Dzydevich, S.V., 123

El'skaya, A.V., 123
Eshold, J., 71

Fetting, F., 39
Fujioka, T., 229

Ge, H., 57
Goldberg, H.D., 171
Golmayo, D., 205
Golubkov, S.P., 65
Grodzicka, B.K., 185
Guglielminotti, E., 27

Hermes, T., 33
Hetrick, R.E., 5

Jaffrezic-Renault, N., 123

Kadam, M.R., 159
Karekar, R.N., 159
Kim, K.H., 91
Knoll, M., 33, 71
Konstantinov, K., 199
Kroll, A.V., 97

Lal, P., 213
Lechuga, L.M., 205
Li, X.-M., 143
Lin, Y., 57
Liu, C.-C., 101
Liu, D.P., 171

Makhija, K.K., 193
Malhotra, B.D., 165
Martelet, C., 123
Meyerhoff, M.E., 171
Mier, G., 205
Mikheenko, L.A., 65
Mills, A., 83
Miremadi, B.K., 1
Mishra, V.N., 209

Näfe, H., 79
Nakano, N., 51
Nayak, M.S., 11
Nazarenko, A.Y., 97
Ng, W.-Y., 143
Nyamsi Hendji, A.M., 123

Ogawa, S., 51
Opekar, F., 131

Panchal, C.J., 193
Park, H.C., 91
Patel, N.G., 193
Potyrailo, R.A., 65

Raju, A.R., 23
Ramanathan, K., 165
Rao, C.N.R., 23
Ratcheva, T., 199
Roy Morrison, S., 1
Ruan, F.-C., 143

Schamp, A.L., 5
Schilling, O., 151
Shul'ga, A.A., 123
Singh, R.C., 1
Skafidas, P.D., 109
Smorchkov, V.I., 97
Soldatkin, A.P., 123
Srivastava, R.K., 213
Srivastava, S.K., 11, 213
Stambolova, I., 199
Su, Y., 219
Sundermeier, C., 33, 71
Suzuki, H., 17

Talanchuk, P.M., 65

Vidal, J.C., 135
Vlachos, D.S., 109

Wong, K.-Y., 143
Wu, Q.-H., 101

Yague, M.A., 135
Yamaga, N., 229
Yasuda, A., 229

Zhou, Z.-B., 101

Elsevier Science S.A.

ELSEVIER

Sensors and Actuators B 21 (1994) 239–241

SENSORS AND ACTUATORS B CHEMICAL

Subject Index of Volume B 21

Acetylcholinesterase
enzyme biosensor based on a micromachined interdigitated conductometric transducer: application to the detection of urea, glucose, acetyl- and butyrylcholine chlorides, 123
Air–fuel ratio sensor
capacitive air–fuel ratio sensor, 5
Ammonia
IR study of TiO_2-based gas-sensor materials: effect of ruthenium on the oxidation of NH_3, $(CH_3)_3N$ and NO, 27
Ammonia sensors
MoO_3/TiO_2 and Bi_2MoO_6 as ammonia sensors, 23
portable photometric ammonia gas analyser using pH-sensitive polymer dye-films: spectral optimization of performance under field operating conditions, 65
urea biosensor based on ammonia gas-sensitive Pt/GaAs Schottky diode, 205
Arsine sensor
preparation of thin gold-film electrode for an electrochemical gas sensor for phosphine and arsine, 51
Automotive sensors
capacitive air–fuel ratio sensor, 5

Batch fabrication
screen printing: a technology for the batch fabrication of integrated chemical-sensor arrays, 171
Bismuth molybdates
MoO_3/TiO_2 and Bi_2MoO_6 as ammonia sensors, 23
BOD measurement
scanning optical sensor for the measurement of dissolved oxygen and BOD, 143
Butyrylcholinesterase
enzyme biosensor based on a micromachined interdigitated conductometric transducer: application to the detection of urea, glucose, acetyl- and butyrylcholine chlorides, 123

Capacitance
urea biosensor based on ammonia gas-sensitive Pt/GaAs Schottky diode, 205
Carbon dioxide sensors
the feasibility of a potentiometric CO_2 sensor based on Na–beta-alumina in the light of the electronic conductivity of the electrolyte, 79
colorimetric polymer film sensors for dissolved carbon dioxide, 83
microfabricated thin-film microelectrode for amperometric determination of CO_2 in the gas phase, 101
fabrication of carbon dioxide gas sensor and its alarm system using indium tin oxide (ITO) thin films, 193
Carbon monoxide
modelling and simulation of abnormal behaviour of thick-film tin oxide gas sensors in CO, 109
Carbon monoxide sensor
life-elongation mechanism of the polymer-electrolyte lamination on a CO sensor, 229
Catalase
enzyme biosensor based on a micromachined interdigitated conductometric transducer: application to the detection of urea, glucose, acetyl- and butyrylcholine chlorides, 123
Catalytic oxides
MoO_3/TiO_2 and Bi_2MoO_6 as ammonia sensors, 23
Chemical sensor arrays
screen printing: a technology for the batch fabrication of integrated chemical-sensor arrays, 171
Chemoresistors
characterization of a chemoresistor pH sensor based on conducting polypyrrole, 57
Chromium oxide
chromium oxide gas sensors for the detection of hydrogen, oxygen and nitrogen oxide, 1
Chronoamperometric H_2O_2 sensor
a chronoamperometric sensor for hydrogen peroxide based on electron transfer between immobilized horseradish peroxidase on a glassy carbon electrode and a diffusing ferrocene mediator, 135
Clark electrodes
disposable Clark oxygen electrode using recycled materials and its application, 17
Colorimetric sensor
colorimetric polymer film sensors for dissolved carbon dioxide, 83
Conductance
enzyme biosensor based on a micromachined interdigitated conductometric transducer: application to the detection of urea, glucose, acetyl- and butyrylcholine chlorides, 123

Dielectric gas sensors
zeolites as sensitive materials for dielectric gas sensors, 39
Dissolved oxygen measurement
scanning optical sensor for the measurement of dissolved oxygen and BOD, 143

Electrochemical sensors
preparation of thin gold-film electrode for an electrochemical gas sensor for phosphine and arsine, 51
electrochemical sensors for hydrogen and hydrogen sulfide determination, 97
measurement of electrode potentials in electrochemical systems with solid polymer electrolytes against common reference electrodes, 131
Electrode potentials
measurement of electrode potentials in electrochemical systems with solid polymer electrolytes against common reference electrodes, 131

Elsevier Science S.A.

Electronic conductivity
the feasibility of a potentiometric CO_2 sensor based on Na–beta-alumina in the light of the electronic conductivity of the electrolyte, 79
Ellipsometric sensors
spectral response of ellipsometric sensors, 185
Enzyme biosensor
enzyme biosensor based on a micromachined interdigitated conductometric transducer: application to the detection of urea, glucose, acetyl- and butyrylcholine chlorides, 123

Ferrocene mediator
a chronoamperometric sensor for hydrogen peroxide based on electron transfer between immobilized horseradish peroxidase on a glassy carbon electrode and a diffusing ferrocene mediator, 135

Gas sensor arrays
application of iteration technique in association with multiple regression method for identification of mixtures of gases using an integrated gas-sensor array, 11
Gas sensors
IR study of TiO_2-based gas-sensor materials: effect of ruthenium on the oxidation of NH_3, $(CH_3)_3N$ and NO, 27
Glassy carbon electrode
a chronoamperometric sensor for hydrogen peroxide based on electron transfer between immobilized horseradish peroxidase on a glassy carbon electrode and a diffusing ferrocene mediator, 135
Glucose biosensor
application of poly(aniline) as a glucose biosensor, 165
Glucose oxidase
enzyme biosensor based on a micromachined interdigitated conductometric transducer: application to the detection of urea, glucose, acetyl- and butyrylcholine chlorides, 123
Glucose sensors
disposable Clark oxygen electrode using recycled materials and its application, 17
Gold electrodes
preparation of thin gold-film electrode for an electrochemical gas sensor for phosphine and arsine, 51

Horseradish peroxidase
a chronoamperometric sensor for hydrogen peroxide based on electron transfer between immobilized horseradish peroxidase on a glassy carbon electrode and a diffusing ferrocene mediator, 135
Humidity sensor
the effect of humidity on an SnO_2 thick-film planar resistor, 159
Hydrogen gas sensors
effect of palladium doping and film thickness on the H_2-gas sensing characteristics of SnO_2, 91
Hydrogen sensors
chromium oxide gas sensors for the detection of hydrogen, oxygen and nitrogen oxide, 1
electrochemical sensors for hydrogen and hydrogen sulfide determination, 97
thick-film hydrogen sensor, 209
Hydrogen sulfide sensors
electrochemical sensors for hydrogen and hydrogen sulfide determination, 97

Interdigitated electrode
enzyme biosensor based on a micromachined interdigitated conductometric transducer: application to the detection of urea, glucose, acetyl- and butyrylcholine chlorides, 123
Ion-selective electrodes
micromachined ion-selective electrodes with polymer matrix membranes, 71
Iteration technique
application of iteration technique in association with multiple regression method for identification of mixtures of gases using an integrated gas-sensor array, 11
ITO thin films
fabrication of carbon dioxide gas sensor and its alarm system using indium tin oxide (ITO) thin films, 193

Life-elongation mechanism
life-elongation mechanism of the polymer-electrolyte lamination on a CO sensor, 229
Light-emitting diodes
portable photometric ammonia gas analyser using pH-sensitive polymer dye-films: spectral optimization of performance under field operating conditions, 65

Microfabrication techniques
microfabricated thin-film microelectrode for amperometric determination of CO_2 in the gas phase, 101
Micromachining
micromachined ion-selective electrodes with polymer matrix membranes, 71
Microsensor array
an amperometric microsensor array with 1024 individually addressable elements for two-dimensional concentration mapping, 33
Mixed conduction
the feasibility of a potentiometric CO_2 sensor based on Na–beta-alumina in the light of the electronic conductivity of the electrolyte, 79
Modelling
modelling and simulation of abnormal behaviour of thick-film tin oxide gas sensors in CO, 109
Molybdenum
MoO_3/TiO_2 and Bi_2MoO_6 as ammonia sensors, 23
Monte Carlo simulations
modelling and simulation of abnormal behaviour of thick-film tin oxide gas sensors in CO, 109
Multiple regression method
application of iteration technique in association with multiple regression method for identification of mixtures of gases using an integrated gas-sensor array, 11

Na–beta-alumina
the feasibility of a potentiometric CO_2 sensor based on Na–beta-alumina in the light of the electronic conductivity of the electrolyte, 79
Nitric oxide
IR study of TiO_2-based gas-sensor materials: effect of ruthenium on the oxidation of NH_3, $(CH_3)_3N$ and NO, 27
Nitrogen oxide sensors
chromium oxide gas sensors for the detection of hydrogen, oxygen and nitrogen oxide, 1
Non-linear region
a practical mathematical analysis for potential chemical sensors working in the non-linear range, 219

Oxygen sensors
chromium oxide gas sensors for the detection of hydrogen, oxygen and nitrogen oxide, 1
disposable Clark oxygen electrode using recycled materials and its application, 17
an amperometric microsensor array with 1024 individually addressable elements for two-dimensional concentration mapping, 33

Palladium
effect of palladium doping and film thickness on the H_2-gas sensing characteristics of SnO_2, 91
pH indicators
portable photometric ammonia gas analyser using pH-sensitive polymer dye-films: spectral optimization of performance under field operating conditions, 65
Phosphine detection
PH_3 detection by SnO_2–ZrO_2 thin films, 199
Phosphine sensor
preparation of thin gold-film electrode for an electrochemical gas sensor for phosphine and arsine, 51
pH sensors
characterization of a chemoresistor pH sensor based on conducting polypyrrole, 57
Poly(aniline)
application of poly(aniline) as a glucose biosensor, 165
Polyetherimide
urea biosensor based on ammonia gas-sensitive Pt/GaAs Schottky diode, 205
Polymer dye-films
portable photometric ammonia gas analyser using pH-sensitive polymer dye-films: spectral optimization of performance under field operating conditions, 65
Polymer-electrolyte lamination
life-elongation mechanism of the polymer-electrolyte lamination on a CO sensor, 229
Polymer films
colorimetric polymer film sensors for dissolved carbon dioxide, 83
Polymer matrix membranes
micromachined ion-selective electrodes with polymer matrix membranes, 71
Polypyrrole
characterization of a chemoresistor pH sensor based on conducting polypyrrole, 57
Portable analysers
portable photometric ammonia gas analyser using pH-sensitive polymer dye-films: spectral optimization of performance under field operating conditions, 65
Potential chemical sensor
a practical mathematical analysis for potential chemical sensors working in the non-linear range, 219

Relative action coefficient
a practical mathematical analysis for potential chemical sensors working in the non-linear range, 219
Ruthenium
IR study of TiO_2-based gas-sensor materials: effect of ruthenium on the oxidation of NH_3, $(CH_3)_3N$ and NO, 27

Scanning optical sensor
scanning optical sensor for the measurement of dissolved oxygen and BOD, 143
Screen printing
screen printing: a technology for the batch fabrication of integrated chemical-sensor arrays, 171
Sensor for reducing gases
a mechanism for sensing reducing gases with vanadium pentoxide films, 151
Sodium carbonate sensitive layer
the feasibility of a potentiometric CO_2 sensor based on Na–beta-alumina in the light of the electronic conductivity of the electrolyte, 79
Solid polymer electrolytes
measurement of electrode potentials in electrochemical systems with solid polymer electrolytes against common reference electrodes, 131
Solid sodium-ion conductor
the feasibility of a potentiometric CO_2 sensor based on Na–beta-alumina in the light of the electronic conductivity of the electrolyte, 79
Spectral response
spectral response of ellipsometric sensors, 185

Thick-film gas sensors
sensing mechanism in tin oxide-based thick-film gas sensors, 213
Thick-film planar resistor
the effect of humidity on an SnO_2 thick-film planar resistor, 159
Thick-film sensor
thick-film hydrogen sensor, 209
Thin-film microelectrode
microfabricated thin-film microelectrode for amperometric determination of CO_2 in the gas phase, 101
Tin oxide
effect of palladium doping and film thickness on the H_2-gas sensing characteristics of SnO_2, 91
the effect of humidity on an SnO_2 thick-film planar resistor, 159
PH_3 detection by SnO_2–ZrO_2 thin films, 199
Tin oxide gas sensors
modelling and simulation of abnormal behaviour of thick-film tin oxide gas sensors in CO, 109
sensing mechanism in tin oxide-based thick-film gas sensors, 213
Titania
MoO_3/TiO_2 and Bi_2MoO_6 as ammonia sensors, 23
IR study of TiO_2-based gas-sensor materials: effect of ruthenium on the oxidation of NH_3, $(CH_3)_3N$ and NO, 27
Trimethylamine
IR study of TiO_2-based gas-sensor materials: effect of ruthenium on the oxidation of NH_3, $(CH_3)_3N$ and NO, 27
Two-dimensional mapping
an amperometric microsensor array with 1024 individually addressable elements for two-dimensional concentration mapping, 33

Urea
urea biosensor based on ammonia gas-sensitive Pt/GaAs Schottky diode, 205
Urease
enzyme biosensor based on a micromachined interdigitated conductometric transducer: application to the detection of urea, glucose, acetyl- and butyrylcholine chlorides, 123
urea biosensor based on ammonia gas-sensitive Pt/GaAs Schottky diode, 205

Vanadium pentoxide
a mechanism for sensing reducing gases with vanadium pentoxide films, 151

Zeolites
zeolites as sensitive materials for dielectric gas sensors, 39
Zirconium oxide
PH_3 detection by SnO_2–ZrO_2 thin films, 199